

REMARKS

Claims 1, 3-10, 14, 32 and 33 are pending in the instant application after entry of this amendment. Claims 1 and 14 are amended as set forth below.

Claim Objection

The Examiner objected to claim 13. Claim 13 has been canceled, thus removing the objection.

35 U.S.C. § 112 – Second paragraph

Claim 1

The Examiner rejected claim 1 under 35 U.S.C. § 112 - second paragraph, for failing to particularly point out and distinctly claim the subject matter the Applicant regards as his invention. Applicant has amended claim 1 to add the term “human embryonic stem cells” in the preamble. Applicant asserts that the claim 1 is now in compliance with 35 U.S.C. § 112 - second paragraph.

Claims 1, 3-10, 14, 32 and 33

The Examiner rejected claims 1, 3-10, 14, 32 and 33 under 35 U.S.C. § 112 - second paragraph, for failing to particularly point out and distinctly claim the subject matter the Applicant regards as his invention. Specifically, the Examiner asserts that while the claims recite that the trophectoderm is removed to isolate the inner cell mass, the specification only supports the use of anti-human lymphocyte antibodies and complement to selectively destroy the cells of the trophectoderm.

Claim 1 has been amended to recite a process for making undifferentiated human embryonic stem cells, comprising the steps of a) thawing a cryopreserved human blastocyst embryo; (b) isolating the inner cell mass by a process comprising the step of removing the trophectoderm from said embryo using anti-human lymphocyte antibody; and c) culturing at least a portion of said inner

cell mass on a medium capable of sustaining undifferentiated embryonic stem cells, whereby undifferentiated human embryonic stem cells are established.

Claim 14 has been similarly amended to recite a process for making undifferentiated human embryonic stem cells comprising the steps of (a) obtaining at least two cryogenically stored human embryos, wherein said at least two embryos consist solely of embryos in the blastocyst phase; (b) thawing one or more of said at least two embryos; (c) isolating the inner cell mass by a process comprising the step of removing the trophectoderm from said embryo using anti-human lymphocyte antibody; and (d) culturing at least a portion of each of said inner cell mass on a medium capable of sustaining undifferentiated embryonic stem cells; whereby undifferentiated human embryonic stem cells are established.

The amendments to Claims 1 and 14 serve to clarify the claim language. Amended claims 1 and 14 set forth that the inner mass is isolated by a process which comprises the step of removing the trophectoderm using anti-human lymphocyte antibody. One of skill in the art would understand the metes and bounds of claims 1 and 14. For example, as the Examiner states on page 8 of the present office action, the use of immunosurgery to isolate inner cell mass is known in the art. The Examiner provided a list of references to support this statement. The Examiner points out that these references differ from the present invention in that they do not use anti-human lymphocyte antibody in the immunosurgery. However, the concept of isolation of the inner cell mass is one understood by those of skill in the art. As such, claims containing the limitation that the inner cell mass is isolated by a process comprising the step of removing the trophectoderm are not indefinite.

Applicant submits that independent claims 1 and 14, and claims 3-10, 32 and 33 dependent thereon are in compliance with 35 U.S.C. § 112 - second paragraph and requests removal of the rejection.

Claim 13

The Examiner has rejected Claim 13 under 35 U.S.C. § 112 - second paragraph, for failing to particularly point out and distinctly claim the subject matter the Applicant regards as his invention. Claim 13 has been canceled, thus removing the objection.

35 U.S.C. § 102

The Examiner has rejected Claim 13 as being anticipated by Thomson *et al.* Claim 13 has been canceled, thus removing the objection.

CONCLUSION

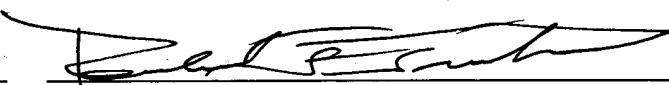
Applicants respectfully submit that the claims are in condition for allowance and an early notification of such is solicited.

Please direct any calls in connection with this application to the undersigned at (415) 781-1989.

Respectfully submitted,

DORSEY & WHITNEY LLP

Date August 17, 2004


Richard F. Trecartin, Reg. No. 31,801

Four Embarcadero Center, Suite 3400
San Francisco, California 94111-4187
Telephone: (415) 781-1989
1149274

Filed under 37 C.F.R. §1.34(a)

Customer No. 32940